

~~Private Sewage Disposal Systems~~ Onsite Wastewater Treatment and Recycling Systems

CHAPTER 1066

~~Private Sewage Disposal Systems~~ Onsite Wastewater Treatment and Recycling Systems

EDITOR'S NOTE: This chapter was re-enacted in its entirety by Ordinance 94-05, passed February 16, 1994.

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CROSS REFERENCES

Approval of sewerage systems by counties - see Code of Va. §§15.2-2126 et seq.
Commonwealth of Virginia State Board of Health Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings 12 VAC 5-640-10 et.seq.;
Commonwealth of Virginia State Board of Health Sewage Handling & Disposal Regulations 12 VAC 5-610, parts I through V
Construction of sewers generally - see S.U. & P.S. Ch. 1060
Use of sewers; building sewers and connections - see S.U. & P.S. Ch. 1064
Pretreatment of wastewater - see S.U. & P.S. Ch. 1068
Sewerage facilities in subdivisions - see ~~P. & Z. 1245-08~~ LSDO 1245.10

1066.01	DEFINITIONS.
	<u>General - Unless so stated in this section, the Loudoun County</u>

Zoning Ordinance, or in the State regulations, definitions shall be as defined in the most recent edition of "Websters Unabridged Dictionary,".

- A) **"Alternative discharging sewage/wastewater treatment system"** means a complete system for the collection of sewage/wastewater and the process of biological and/or chemical reduction of the waste with a subsequent discharge into a receiving all weather stream, intermittent stream, dry ditch or other location approved by the Department.
- B) **"Alternative onsite system"** means a wastewater treatment system that includes different components than typically used in a conventional onsite system. An alternative system is used to achieve acceptable treatment and dispersal of wastewater where conventional systems either may not be capable of protecting public health and water quality, or are inappropriate for properties with insufficient area of suitable soil, shallow soils over groundwater or bedrock, or soils with low permeability. Examples of components that may be used in alternative systems include pumps, sand filters, aerobic treatment units, disinfection devices, and alternative subsurface infiltration designs such as mounds, gravelless trenches, and pressure or drip distribution.
- C) **"Approving authority"** means the Loudoun County Health Department Director or his or her duly authorized agent.
- D) **"Approved method of the recycling of sewage/wastewater"** means water carriage of sewage/wastewater to an approved public sewage/wastewater treatment system and dispersal back to the environment through the soil; water carriage of sewage/wastewater to an approved septic tank system or other approved onsite wastewater treatment system and dispersal back to the environment through the soil; or non-water carriage of human excrement only to an approved pit privy or other approved privy facility.
- E) **"Class V Injection Well"** means a shallow well used to place a variety of fluids directly below the land surface including **a domestic onsite wastewater system serving more than 20 people**. USEPA and delegated state groundwater programs permit these wells to inject wastes below the ground surface provided they meet certain requirements and do not endanger underground sources of drinking water. These would be classified as a Type II or Type III Sewage Disposal System by the State. Class V motor vehicle waste disposal wells and large-capacity cesspools are specifically prohibited (see 40 CFR Parts 144 & 146).
- F) **"Conventional Onsite System"** means a wastewater treatment system using gravity flow, consisting of a house lateral/building sewer which runs from the building to a septic tank, piping from the septic tank to a distribution box which separates the flow into two or more pipes that leads to a dispersal system, where it is released to the soil for final treatment and then into the environment. These systems may contain filters (screens) and pumps, which will require additional maintenance.
- G) **"Conservation Design Plan"**
- H) **"Construction Permit"** means a permit issued by the Approving Authority to construct the onsite wastewater treatment and dispersal system.

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- I) "Cr horizon" means the weathered or soft bedrock and may indicate root restrictive layers. Cr may be impervious or pervious.
- J) "Design and expected life of systems" means the number of years that an initial wastewater treatment and dispersal system is expected to perform as designed and installed when properly operated and maintained. This does not include any credit for that portion of the dispersal system required for replacement.
- K) "Dispersal" means the spreading out of the wastewater over an area to infiltrate into the soil for final treatment and return to the environment. Once wastewater is dispersed it is no longer controlled by pipes, trenches, boxes or any other infrastructure, or controlled means. It is released to the soil.
- L) "Dispersal system" also known as drainfield, means the infrastructure of that portion of a sewage/wastewater treatment system where the effluent from a septic tank or other pretreatment or treatment process is applied or dispersed to the soil beneath the ground surface for final treatment and release to the environment.
- M) "Drainage way" means the concave portion of the landscape in which surface water or rain water runoff gathers intermittently to flow to a lower elevation.
- N) "Failure" means when a system's: (a) treated or non treated water: backs up, that is, does not flow as designed (which includes surfacing of soil based systems); (b) does not meet the permitted or design treatment standards or effluent limitations; or (c) equipment and/or appertenances are not performing or capable of performing as designed.
- 1) **Type I System Failure** – Wastewater is causing or has the potential to cause a human health problem or environmental problem due to exposure or not meeting permitted wastewater treatment standards.
- 2) **Type II System Failure** – The system is not functioning properly or as designed but there is no human health threat, or environmental problem. (e.g. equipment has not been maintained or the system backs up periodically.)
- O) "Flood plain" means a low, usually flat terrain on either side of a river or stream that is normally dry but submerged at times of high water, and where accumulations of silt and sand are deposited away from the main channel. A base flood defined in the zoning ordinance as the 100 year flood shall be used for the purpose of determining the size and location of the flood plain.
- P) "Health Department" means the Loudoun County Health Department (LCHD) staff under the direction of the Health Director.
- Q) "Health Director" means the Loudoun County Health Department Director.
- R) "Impervious strata" means soil or soil materials with an estimated or measured percolation rate in excess of 120 minutes per inch, including lithic rock, paralithic rock and CR horizons.

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- 157 S) **"Inspection"** means surveillance procedures as used by the Health
158 Department to determine compliance with the provisions of this chapter.
- 159 T) **"Limestone outcrop belt (LOC)"** means those areas underlaid by
160 carbonate bedrock, including, but not limited to, Triassic-Jurassic
161 Leesburg limestone conglomerate and Cambrian limestones and
162 dolomites, and which have landscapes with carbonate bedrock outcrops,
163 sinks, sinkholes and solution channels in bedrock, and which often exhibit
164 aspects of Karst or Karren topography
- 165 U) **"Lithic rock"** means partially weathered rock material which cannot be bored
166 using a standard, hand-operated three and one-quarter inch barrel auger and
167 sixteen-inch cross handle.
- 168 V) **"Maintenance Provider"** means an individual or a company that provides
169 maintenance to one or more onsite wastewater treatment systems. This
170 includes pumpers and may also include suppliers and manufactures as well
171 as specially trained individuals.
- 172 W) **"Marshes, wetlands, and swamps"** means periodically wet or continually
173 flooded areas with the land surface not deeply submerged.
- 174 X) **"Massed sewage/wastewater dispersal system"** means a
175 sewage/wastewater dispersal system or systems which result in a design
176 flow of 1500 gallons or more per day per acre.
- 177 Y) **"Microtopography"** means small-scale, local differences in topography,
178 including mounds, swales or pits, that are only a few feet in diameter and with
179 elevation differences of up to six feet.
- 180 Z) **"Onsite Wastewater Treatment System (OWTS)"** means a system relying
181 on natural processes and/or mechanical components to collect, store, treat,
182 or reclaim and disperse wastewater from not more than two dwellings or
183 buildings. This definition does not include public sewers.
- 184 AA) **"Operation Permit"** means a renewable and revocable permit to operate and
185 maintain an OWTS in compliance with specific operational or performance
186 requirements stipulated by the approving authority.
- 187 BB) **"Paralithic rock"** means weathered rock material which may be found above
188 lithic rock and below the natural soil (surface and subsoil) and which
189 conforms to the definition of "Cr horizon."
- 190 CC) **"Repair (of a OWTS)"** means the rehabilitation and restoration of any
191 approved OWTS, or portion thereof, which has failed.
- 192 DD) **"Responsible Management Entity (RME)"** means an entity responsible
193 for providing various management services with the requisite infrastructure
194 to undertake the managerial, financial, and technical capacity to ensure
195 the long-term, cost-effective operation of onsite wastewater treatment
196 facilities in accordance with applicable regulations and performance
197 requirements (e.g., a wastewater utility or wastewater management
198 district).
- 199 EE) **"Sanitary pit privy"** means a pit and/or chamber for receiving non-water
200 carriage of human waste, over which is placed a privy house with seats.
- 201 FF) **"Seasonal water table"** means an observed water table and/or that
202 portion of the soil profile where a color change has occurred as a result of
203 saturated soil conditions. Typical colors are gray, black or less than

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- 204 Chroma 2 on the Munsell Soil Color Chart.
- 205 GG) **"Septic tank"** means a water tight settling tank in which part of the heavy
- 206 solids are settled and the organic solids decompose by anaerobic bacterial
- 207 action.
- 208 HH) **"Sewage"** or wastewater means human excrement and the liquid wastes
- 209 derived from dwellings, business establishments, institutions and other
- 210 structures or places used for human habitation, employment or
- 211 congregation exclusive of those wastes derived from industrial processes.
- 212
- 213 II) **"Sewer, Public"** means a central, communal or municipal wastewater
- 214 treatment system serving more than two (2) lots owned or operated by a
- 215 municipality, or the Loudoun County Sewerage Authority (LCSA) for the
- 216 collection, treatment, and return to the environment of
- 217 sewage/wastewater. This definition is to remain consistent with the
- 218 Loudoun County Zoning Ordinance. In the event of any conflict in
- 219 definition, the zoning ordinance shall govern.
- 220 (i) Sewer system, Central: The sewage treatment system for
- 221 Eastern Loudoun county owned and operated by the LCSA that is
- 222 served by the Blue Plains and/or Broad Run treatment plants,
- 223 and/or capacity supplied by the Upper Occoquan Sanitary
- 224 Authority.
- 225 (ii) Sewer System, Communal: A sewage treatment system
- 226 owned or operated by the LCSA that is designed to serve small-
- 227 scale development, including clusters, where permitted by the
- 228 planning and zoning ordinance.
- 229 (iii) Sewer System, Municipal: A sewage treatment system that
- 230 is owned and operated by one of the incorporated towns within
- 231 Loudoun County.
- 232 JJ) **"Sewage/wastewater treatment system"** means a complete system for
- 233 the collection of sewage/wastewater and the process of biological and/or
- 234 chemical reduction of the waste with a subsequent reuse or release to the
- 235 environment.
- 236 KK) **"Slope"** means the incline surface of a hill, mountain, etc., or any part of
- 237 the surface of the earth. "Slope" also means the angle at which such
- 238 surfaces deviate from the horizontal, commonly expressed in percent.
- 239 LL) **"Soil analysis"** means a systematic approach to evaluation of soil
- 240 conditions by a qualified professional soils technician.
- 241 MM) **"Temporary privy"** means a portable privy with a vault used for the
- 242 collection and storage of human excrement for a specified period of time.
- 243 NN) **"Wastewater"** or sewage means human excrement and the liquid wastes
- 244 derived from dwellings, business establishments, institutions and other
- 245 structures or places used for human habitation, employment or
- 246 congregation exclusive of those wastes derived from industrial processes.
- 247
- 248 1066.02 APPROVED METHOD OF SEWAGE/WASTEWATER DISPOSAL

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TREATMENT REQUIRED.

- (a) No person shall use or occupy, or rent or lease for use or occupancy, any house, trailer, mobile home, whether self-propelled or not, warehouse, public or private building or other structure or gathering place in which there is human habitation, employment or congregation, until such house, trailer, mobile home, warehouse, public or private building or other structure or gathering place is supplied with an adequate, approved method for the ~~disposal~~ treatment of sewage/wastewater and return to the environment as provided for in this chapter.
- (b) Following the effective date of this chapter, no person shall construct a new dwelling unit unless and until it can be furnished with minimum sanitary facilities to include a toilet, hand lavatory, tub and/or shower and kitchen sink, inasmuch as these minimum facilities are necessary to good sanitation. All such fixtures shall be supplied with hot and cold running water, with the exception of the flush toilet. In new units intended for purposes other than use as dwelling units where tubs and/or showers are not necessary for sanitation, minimum facilities shall consist of at least a toilet and hand lavatory with hot and cold running water. (Ord. 94-05. Passed 2-16-94.) All fixtures shall be connected through proper plumbing to an approved and permitted wastewater treatment system.

1066.03 PERMITS REQUIRED FOR ~~INDIVIDUAL~~ ALL SYSTEMS.

A) General

No person shall install, construct, alter, repair or extend, or allow to be installed, constructed, altered, repaired or extended; any sewage/wastewater treatment system in the County without first applying for and obtaining County approval. No person shall install, construct, alter, repair or extend, or allow to be installed, constructed, altered, repaired or extended; any discharging wastewater treatment system in the County without applying for and obtaining a VPDES Permit in conjunction with the County Permits. No person shall install, construct, alter, repair or extend, or allow to be installed, constructed, altered, repaired or extended, any OWTS in the County without first applying for and obtaining a valid construction permit therefore in the name of a specific person for a specific location. In addition, no person shall change, renovate, alter or remodel any structure served by an OWTS unless and until such is done in accordance with a valid construction permit or under written approval of the Health Department stating such will not cause an increased loading on the sewerage system. The owner or responsible management entity must obtain an operation permit upon completion and approval of any installation, construction alteration, replacement or extension of a wastewater treatment system. The issuance of a construction permit, subsequent installation and acceptance of the OWTS upon inspection by the Health Department, and issuance of an operation permit does not imply a guarantee of such system, and it shall be the responsibility of the owner to maintain, repair or replace any system which has ceased to function in a sanitary manner or failed.

B) Construction Permit

Construction Permits for installation, construction, alteration, repair or

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- extension of OWTS shall be issued by the Health Department.
- 1) Requirements
 - (a) The Health Director shall require such tests, plans and/or specifications as the Health Director deems necessary to determine the adequacy and desirability of the proposed system, and such information shall be made a part of the permit records.
 - (b) Where applicants choose to utilize a licensed site evaluator [1066.04 (a)], the site evaluator shall certify either “yes” or “no” that the site is suitable for a conventional treatment system.
 - 2) The Approving Authority shall not grant any approvals or issue any permits for sewage/wastewater treatment and dispersal system without first conducting a field investigation or verification of site suitability [see 1066.11 below]
 - 3) Approval or Denial of Construction Permit.

Except as provided for in either (5) or (6) below, when the Health Director is satisfied that a proposed system is adequate for the conditions under which a system is to be installed and used, a written permit to proceed with construction shall be issued. Construction permits for alternative systems, Class V well systems, commercial systems, or Performance design systems shall not be issued until a statement is recorded and indexed in the grantor index under the holder’s name in the land records of the clerk of the circuit court alerting future owners of the system type and system maintenance requirements. Otherwise, a permit shall be denied in writing stating the specific reason for denial.
 - 4) Building Permit

No person shall be entitled to obtain a building permit in the County until such time as he has obtained a valid OWTS construction permit from the Health Department where such a permit is required to provide for adequate sewage/wastewater treatment and dispersal.
 - 5) Recordation of Alternative System on Property Deed Required

No Construction Permit shall be issued for any non conventional system until such time that the Alternative System has been recorded on the deed to the property.
 - 6) Board of Supervisors Approval Required

Either an Alternative discharging wastewater treatment system, a conditional system or a permanent pump and haul system require Board of Supervisors approval.
- C) Operation Permit

An operation permit is a tool to ensure that a system is operating properly. Each operation permit has a term to provide for review and evaluation of the conditions and parameters that were a bases for the current operation and determine any changes necessary. For new systems, remodeling, replacement, or extensions, the construction or installation of the system must receive a compliance inspection and the system must be certified, by the designer, that it has been constructed or installed in conformance with the design. Table 1 below identifies the types of requirements that are contained in an operation permit. The construction application and permit

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as well as the materials required for the operation permit application in Table 3 all are incorporated into the operation permit.

- 1) Approval or Denial of Operation Permit.
When the Health Director is satisfied that a proposed system is adequate for the conditions under which a system is to be operated, has been constructed as designed, and the owner has provided the necessary contractual agreements required, a written permit to proceed with operation shall be issued.
- 2) Occupancy Permit
No person shall be entitled to obtain an occupancy permit in the County until such time as he has obtained a valid OWTS operation permit from the Health Department where such a permit is required to provide for adequate sewage/wastewater treatment and dispersal.

System Type	RME is required	Term of permit	Reporting	Monitoring Water Quality or alternative	Compliance inspection
Conventional	No	5-15 years	Pump outs, repairs and failure	No	Permit Term or Sale of property
Alternative dispersal	No	2 – 10 years	Maintenance and failure	No	Permit Term or Sale of property
Alternative (pretreatment)	Possibly	2 – 5 years	Maintenance, Inspection, failure	Sensitive Environment only	Permit Term or Sale of property
Alternative Discharging	Yes	2 – 10 years	Maintenance, testing, monitoring, failure	Yes	Periodic, Term, and Sale of Property
Commercial or Class V well	Yes	2- 5 years	Maintenance, testing, monitoring, failure	Yes	Periodic, Term, and Sale of Property
Performance Design Conditional or Experimental	Yes	1- 2 years	Maintenance, testing, monitoring, failure	Yes	Periodic, Term, and Sale of Property

Table 1 – Operation Permit Key Contents

- 3) **VPDES**
 All discharging systems must have a VPDES permit. Single Family wastewater treatment systems have been covered by a General Permit.
- 4) **Permit Cancellation**
Material changes in site conditions upon which a permit to install or operate a OWTS was based shall automatically cancel the permit. No person shall proceed with construction or continue operation until such time as further written approval has been obtained from the Health

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Department, in accordance with this chapter. Notwithstanding any other provision of this chapter, permits shall be automatically void should the approving authority later determine that a potential health hazard would be created by continuing installation or operation.

5) Permit Administration

(a) Application

- (i) Forms – Separate application is required for a Construction Permit and an Operation Permit. Application shall be made on separate forms furnished by the Loudoun County Health Department.
- (ii) Table 2 identifies the materials that must accompany an application for construction of an OWTS.

<u>Required Construction Permit Application Material</u>	<u>Conventional</u>	<u>Designed</u>	<u>Commercial</u>	<u>Discharging</u>	<u>Conditional or Experimental</u>
<u>Completed Application Form</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
<u>Certification Letter</u>	<u>If available</u>	<u>If available</u>	<u>If available</u>	<u>N/A</u>	<u>If available</u>
<u>Determination of Site Suitability</u>	<u>If available</u>	<u>Yes</u>	<u>Yes</u>	<u>N/A</u>	<u>Yes</u>
<u>Completed site plan</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
<u>Plans and specifications see 12 VAC 5-610-250 G & H</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
<u>Hydraulic Evaluation of the dispersal into the environment</u>	<u>No</u>	<u>When in Subdivision with common drainfield areas</u>	<u>Yes</u>	<u>No</u>	<u>Case by Case determination</u>

Table 2 - Construction Permit Application

- (iii) Table 3 identifies for each type of system, the applicant and
- (iv) the materials that must accompany an application for an operation permit.
- (v) Processing requirements
Applications for a Construction or Operation Permit shall be submitted to the Health Department in triplicate. An application shall not be considered unless it is complete. The Health Department will notify the applicant of incomplete applications. The application review should generally not exceed 15 working days for a construction permit or 30 working days for an operation permit, assuming the application is complete and all information requested has been provided, upon which either the permit will be approved or denied. Any denial shall be in writing stating the reason(s) for denial.

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System Type	Applicant	Maintenance Manual	Reports	Construction Certification	Operating instructions	Service Contract
Conventional	Owner	Provided by LCHD	Construction Inspection(s)	By designer else LCHD	Provided by LCHD	No
Alternative dispersal	Owner and/or RME	By Designer	Construction Inspection(s)	By designer	By designer	2 Year
Alternative (pretreatment)	Owner and /or RME	By designer	Construction inspection(s)	By designer	By designer	2 yr. min
Alternative Discharging	Owner and RME	By designer	Construction inspection(s) and water quality	By designer	By designer	Renewable 2 year min.
Commercial or Class 5 well	RME and Owner	By designer and RME	Construction inspection(s), Monitoring wells	By designer	By designer and RME	Owner's contract with RME

Table 3 – Operation Permit Application

(vi)

Fees

Fees shall be as set forth in the Loudoun County Onsite Wastewater Treatment System Rates and Fees.

1066.04 LICENSE AND BOND REQUIREMENTS.

- A) Site evaluator, Soil Scientist, Authorized Onsite Soil Evaluator
No person shall conduct soil evaluations and/or a percolation test for purposes of this chapter without first obtaining Site Evaluator License from the Health Department. Such license shall be issued upon written application and payment of a license fee, provided that the applicant has a satisfactory knowledge of soil evaluation and testing procedures, as shall be determined by the passage of a standard written examination to be administered by the Health Department
- B) Designer, Engineer, AOSE
No person shall design OWTS for purposes of this chapter without having a license to practice in Virginia and shall have successfully completed 6 continuing education uunit's (CEU's) related to onsite wastewater treatment systems within the past 3 years. Each person shall submit credentials to document the requirements along with a processing fee. Any designer of a system for installation in the County shall be required to certify upon completion of installation, that the system has been installed according to plans and specifications, and if operated in accordance with the operations and maintenance manual should last for a specified useful life.
- C) Installer, Contractor
No person shall install, repair or contract to install or repair individual sewage/wastewater treatment systems or parts thereof without first obtaining an installer license from the Health Department. Such license requirement shall not apply to an individual person who installs not more than one such

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system on his own property within one year or twelve consecutive months. The installer license is to be issued by the Health Department upon written application, payment of a license fee and presentation of satisfactory evidence that the applicant has a working knowledge of the installation of sewage/wastewater treatment systems as well as the provisions of this chapter. Those installers/contractors which have a valid and current state Class A Contractor's License must obtain a Loudoun County installer license.

D) Inspector, Evaluator

Inspection of systems and portions of systems may be conducted for several purposes to include: a **compliance inspection** is conducted to determine that a system is in full compliance with laws, codes, regulations, ordinances and permits; a **failure evaluation** is conducted to determine why a system failed. In order to be licensed as an Inspector, an individual shall have passed a course that the County accepts as a "Certified Inspector." Such a course and certification is currently offered by NSF International as one example. Other inspections such as construction and document inspections will be conducted by the LCHD or its authorized agent. Inspections may be conducted by the Health Department, without licensure. Each inspection or evaluation is to be reported by the Inspector/Evaluator into the County's reporting system according to the specific rules and requirements of the system.

Note: Other types of reviews, such as a operation and maintenance checkup, which, in the past, may have been called inspections, will continue to be provided from time to time and not classified as an inspection and therefore, a licensed Inspector shall not be required.

E) Maintenance Provider

Maintenance providers work, in some cases, will be the same or very similar to that provided by either an operator or responsible Management Entity. Many of the wastewater systems are intricate and require special training by the manufacturer. However, if the manufacturer or supplier are to provide this service they must be properly licensed. The Maintenance Provider license is divided into 4 classes as shown in Table 4 below. Each maintenance provider is required to report all maintenance into the County's reporting system according to the specific rules and requirements of the system.

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Class A	Maintenance Provider must be proficient with all equipment, and systems installed in Loudoun County with the exception of experimental systems. Maintenance of experimental systems shall be determined as part of the design and approval of each system, and shall require designer oversight.
Class B	Maintenance Provider is proficient in conventional systems and one or more systems as identified on his license.
Class C	Maintenance Provider is proficient in the maintenance of conventional OWTS
Class D	Maintenance Provider is certified as a Pumper/Hauler

Table 4 – Maintenance Provider Classes

- 1) Septic Tank Cleaner's/Class D License. No person shall engage in the business of cleaning septic tanks, settling tanks and/or vaults designed to hold or retain solids and/or liquids in conjunction with any sewage/wastewater treatment system, by whatever name called, without first obtaining a Class D license from the Health Department. The Class D license shall be issued by the Health Department upon written application and payment of a license fee, provided that the applicant gives evidence that he can comply with the following requirements.
 - (a) Equipment requirements.
 - (i) The tank into which sewage/wastewater is pumped or delivered and carried is to be fully watertight
 - (ii) All inlets and outlets to such tanks shall be fully enclosed and provided with watertight valves.
 - (iii) Suction and discharge hoses shall be watertight and provision shall be made for carrying such hoses in a manner that will prevent any spillage or leakage.
 - (iv) All exposed surfaces shall be painted and maintained in a clean and sanitary condition by frequent washings.
 - (v) The name and address of the person owning such equipment shall be painted on the vehicle in letters at least four inches high so as to be visible from either side of the vehicle. In addition, the sewage handler's permit number and the Loudoun County License numbers shall be displayed directly beneath the name and address and in plain sight.
 - (vi) A copy of the septic tank cleaner's license shall be carried in the glove compartment of each vehicle operated.
 - (b) Reporting Requirements
 - (i) Each tank pumped shall be identified by operation permit number, owners name, address, RME if appropriate, gallons removed, time and date.
 - (ii) Each load emptied shall be identified by the number of gallons, anything added to the load other than septage, the receiving place name and address, time and date.

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- 500 (iii) Where land applied, all actions taken to comply with all
501 Federal, State and Local laws.
- 502 F) Responsible Management Entity
503 Each RME shall provide the County with a complete description of the
504 services provided and its business plan. The business plan will be
505 considered business confidential and not subject to release by the Loudoun
506 County, the LCHD, or any other governmental entities. This may be done
507 through contracting with other maintenance providers and/or providing the
508 service directly. These documents will be evaluated in conjunction with
509 issuing a RME license.
- 510
- 511 G) Bonding
512 All persons required to have a license, state and/or local, under this chapter
513 shall furnish bond payable to the County in the amount specified in Loudoun
514 County Onsite Wastewater Treatment System Rates and Fees for specific
515 licenses, with surety approved by the Treasurer of the County and
516 conditioned to indemnify and save harmless the County, as well as any other
517 person, from all expenses and damages that may be caused by any neglect,
518 omission or defective or inadequate work done by such licensee, his agent,
519 employee or representative. Where such work is deemed defective or
520 inadequate by the Health Department and is not corrected within ten days of
521 written notice to do so, the Health Department may declare the bond forfeited
522 and shall use the proceeds there-from to correct such work and, in addition,
523 to pay all damages which may have been occasioned to any person by
524 reason of such neglect, omission or defective or inadequate work. Such bond
525 shall be deposited with the County Treasurer and shall be in force for a
526 period of not less than the period of the license.
- 527
- 528 H) Revocation of Licenses. Any person having a license required by this chapter
529 who is convicted of a violation of any of the provisions of this chapter or who
530 fails to correct a violation of any of the provisions of this chapter, upon written
531 notice to do so, shall, in addition to forfeiture of bond, be subject to a
532 suspension or loss of his license and/or a refusal to renew his license by the
533 Health Department.
- 534
- 535 I) Renewal of Licenses. All licenses are annual and shall be renewed between
536 January 1 and January 15 of each year and are not proratable. A request for
537 renewal is to be submitted to the Health Department in writing and is the
538 responsibility of the license holder. Examination shall not be necessary for
539 renewal. (Ord. 94-05. Passed 2-16-94.)
- 540
- 541 1066.05 INSPECTIONS.
- 542 A) General
543 The Health Director may inspect the entire OWTS maintained at all
544 premises in the County for the purpose of determining if such is being
545 operated and maintained in a sanitary manner and in accordance with the
546 operation permit. Such inspection shall be done at reasonable times and,
547 whenever practical, in the company of the owner, RME or occupant of the

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premises.

B) Construction

1) Frequency

The Health Director or his authorized agent shall make such inspections as may be deemed necessary during the construction, alteration, reconstruction, or repair of any sewage/wastewater treatment system installed in the County to determine compliance with the requirements of this chapter and the construction permit. No person shall use, allow to be used or cause to be used, any system until after the Health Department has inspected and approved the same in writing in the form of an operation permit. No part of any system shall be covered until it is inspected and approved by the Health Department, and any such part which has been covered prior to inspection shall be uncovered for inspection upon order of the Health Director. In extraordinary circumstances, the Health Director or his authorized agent may wave final approval of any system, although incomplete, when reasonable professional judgment indicates a revisit is not practical or feasible. The inspection form shall indicate such waiver.

2) Fees

Fees shall be as set forth in the Loudoun County Onsite Wastewater Treatment System Rates and Fees.

C) Compliance

1) Sale of Property

Prior to the transfer of ownership of an onsite wastewater treatment system an inspection shall be conducted by a "certified inspector" or by the Health Department. The wastewater system shall be operating in a manner to protect public health and the environment and the system shall be in such a condition to maintain the property values of the properties served. This inspection shall be used as the basis for issuing an operation permit to the new owner. In those cases where a compliance inspection has recently been conducted, a change of ownership inspection may be waived in writing by the approving official upon request of the owner. Three copies of the inspection report shall be provided, by the inspector, to the owner. The owner shall provide a copy to the buyer (new owner) and the LCHD.

2) Reported Failure

Upon report of a system failure or apparent failure by a citizen, maintenance provider, owner, operator, or other person, the Health Director shall require a compliance inspection of said system. A Type I System Failure, requires immediate correction. This may result in temporary pump and haul until a permanent repair or replacement is completed. Any system that has failed prior to either the design life or useful life shall have an evaluation conducted to determine the reason for failure. The evaluation shall be conducted as soon as possible but not later than 60 days from report of failure. A report of the evaluation shall be provided to the LCHD, owner and RME.

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- 595 3) Periodic
596 Periodic compliance inspections may be required for certain systems in
597 the operating permit. Typically, this will be for experimental, or
598 designed systems, and for systems that qualify as a class V well.
599 4) Protocol and Content
600 (a) Certified Inspectors shall utilize the protocol, process, and forms
601 as designated in their certification
602 (b) LCHD inspectors shall utilize the protocol, processes and forms
603 as determined by the Health Department
604 5) Fees
605 Fees shall be as set forth in the Loudoun County Onsite Wastewater
606 Treatment System Rates and Fees.
607 D) Operational Reviews
608 Operational reviews and reporting may be required by the operation permit
609 to ensure that a system is operating or performing and that necessary
610 maintenance and reporting occurs. These reviews may be performed by
611 either a RME , maintenance provider or the LCHD. These reviews shall
612 not be considered inspections.
613 E) Document Inspections
614 Document inspections are directed at practitioners who are required to
615 maintain certain documentation associated with their work and owners who
616 are required to keep certain records. This may include information associated
617 with obtaining and maintaining licenses, systems where they provided service
618 or other documentation. These will be accomplished by the LCHD or their
619 representative.

621 1066.06 NEGLECT OR MISUSE OF SYSTEMS.

622 No owner, tenant or lessee of any premises properly supplied with an approved
623 method of ~~disposal~~ treatment of sewage/wastewater shall misuse or neglect such a system
624 or any part thereof so as to cause it to cease to be sanitary.

626 1066.07 RESPONSIBILITY OF OWNER OF SYSTEM.

627 The issuance of a construction permit, subsequent installation and acceptance of the
628 ~~individual sewage system~~ OWTS upon inspection by the Health Department and issuance
629 of an operating permit does not denote or imply any guarantee of such system, and it shall
630 be the responsibility of the owner, or any subsequent owner of the system, to maintain,
631 repair or replace any system which has ceased to function in a sanitary manner. (Ord.
632 94-05. Passed 2-16-94.)

634 1066.08 FEES.

635 The County shall establish, set and charge such fees as it deems necessary and
636 reasonable to defray the cost of permits, inspections, compliance monitoring, and/or
637 licenses as are required to be issued under this chapter. (Ord. 94-05. Passed 2-16-94.)

639 1066.09 INSTALLATION, REPLACEMENT OR REPAIR OF OWTS ~~INDIVIDUAL~~
640 ~~SYSTEMS~~ WITHIN 300 FEET OF A PUBLIC SANITARY SEWER.

641 If an approved public ~~or private~~ sewer is within 300 feet of any new building or
642 structure for which sewage/wastewater treatment ~~disposal~~ is required, the property owner

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shall connect to the sewer, provided that capacity in the public sewer and at the wastewater treatment plant are available and the owner of the sewer permits such a connection.

Should an existing OWTS ~~individual sewerage system~~ cease to operate in a sanitary manner or should alterations be required to provide safe and adequate treatment, and the building or structure to be served is within 300 feet of an approved public ~~or private~~ sewer, the property owner shall connect to the sewer, provided that capacity in the public sewer and at the wastewater treatment plant are available and the owner of the sewer allows such a connection. (Ord. 94-05. Passed 2-16-94.)

1066.10 EFFLUENT PUMP SYSTEMS.

The use of sewage /wastewater ejectors, lift stations or pumps on raw sewage lines to septic tanks are prohibited. This shall not apply to effluent from the septic tank which may be collected in a separate tank and pumped to the subsurface ~~disposal~~ dispersal field distribution box, provided a check valve and flow velocity reducing device are used prior to entering the distribution box. For lifts in excess of fifteen feet, the applicant may be required to submit plans and a manufacturer's guarantee of performance. Pump controls providing time dosing are required for all pump systems. All such installations shall provide for the ability to fill the subsurface ~~disposal~~ treatment field tile to six-tenths capacity and shall be installed according to manufacturer's specifications. (Ord. 94-05. Passed 2-16-94.)

1066.11 DETERMINING SUITABILITY OF WASTEWATER DISPERSAL SYSTEMS.

(a) Application Process The Health Department shall not grant any approvals or issue any permits for sewage/wastewater treatment and dispersal systems without first conducting a field evaluation or verification. Also see 1066.03.

(1) Subdivisions. The owner shall submit surveyed plans and specifications of the sewage/wastewater ~~disposal~~ treatment and dispersal systems where such is required, together with the plans and specifications of the proposed water supply system, to the Health Department for approval, and such plans and specifications shall be approved prior to the start of any construction or building.

The Director of Health shall develop procedures to evaluate subdivisions served by on-site sewage /wastewater ~~disposal~~ treatment systems, consistent with the LSDO and Standard Regulations. Approval of a lot by the Health Department does not denote, nor is it intended to imply, final approval; it merely represents initial findings in accordance with the criteria at such time. Prior to construction on any lot, it shall be necessary to apply for and obtain a construction permit from the Health Department, and such construction permit shall be issued in accordance with the standards at the time the application is made. The Health Department shall take into consideration the specific proposal and the previous findings, but shall not be obligated by those findings should it later be determined that a health hazard would result by allowing installation of a subsurface ~~disposal~~ treatment and dispersal field. Sub divisions must show how the following Nitrogen requirements will be met.

(a) Total Nitrogen = < 10 mg/l This standard is required to meet a drinking water groundwater supply limit. The depth to ground water will vary from site to site and may or may not be within the zone of evaluation. Site conditions and size as well as rainfall dilution can be considered in setting the permit limits if required.

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Generally a single family 4 bedroom structure on 3 acres will meet this requirement and no permit limit will be required.

- (b) Total Nitrate Nitrogen ≤ 5 mg/l This standard is required to meet 9 VAC 25-260-220 Groundwater Standards Applicable by Physiographic Province. It shall be applied to subdivisions, massed sewage disposal systems, clusters and large systems. A hydrologic evaluation may be required for these systems to determine the permit limits.

~~(b)~~ (2). Individual Lots. A permit for construction of a subsurface sewage/wastewater ~~disposal~~ treatment and dispersal system field on an individual lot or property shall be issued after completion of a satisfactory investigation which indicates that such a system can be installed and is expected to perform in a sanitary manner so as not to create a health or environmental hazard. The following information may be used in determining suitability:

- (1)~~A~~. The experience of the Health Department as supported by field investigation and soil evaluations;
(2)~~B~~. Information submitted on behalf of an applicant by a qualified professional consultant in the field of waste ~~disposal~~ treatment of domestic waste or related subjects, which information shall be evaluated by the Health Department, as submitted, prior to approval;
(3)~~C~~. Results of actual percolation tests conducted on the property in the area of the proposed subsurface ~~disposal~~ dispersal field, which tests are to be conducted by the Health Department or by a qualified field representative licensed to conduct such tests in the County; and
(4)~~D~~. Information on file with the Health Department as to previous evaluation and/or tests on the property.

(e) (3). Evaluation; Conflicts. Soil evaluations for a subsurface absorption system shall follow a systematic approach. Reports submitted for subsurface absorption systems shall be detailed soil/site investigations, as described in subsection (h8) hereof. Evaluations shall indicate whether or not the soils meet the criteria specified herein for the installation of the type of on-site sewage /wastewater ~~disposal~~ treatment and dispersal system proposed. In addition to information gathered during the soils and geotechnical investigation, the topography, available area, proximity to ground and drinking water supplies, proximity to bodies of water, rates of water absorption by the soil horizon proposed for use, or a combination of any of the above, shall also be considered in such evaluation. If absorption rate problems are suspected and there is no indication of a water table, percolation tests may be required, but their results shall not be presumptive, prima-facie or conclusive evidence as to the suitability for effluent absorption.

When discrepancies exist between these and other State or local agency codes or regulations, the more restrictive will apply.

~~(d)~~ (4). Site and Structure Identification. A site sketch, prepared by the applicant, is to accompany all applications for permits to construct OWTS ~~on-site disposal systems~~ and must show accurately:

- (1) A. The dimensions of the property.
(2) B. Proposed and/or existing structures and driveways.

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- (3) C. Underground utilities.
- (4) D. Adjacent soil absorption ~~sewage/wastewater disposal treatment and~~ /dispersal systems.
- (5) E. Bodies of water.
- (6) F. Drainageways.
- (7) G. Wells and springs within a 200-foot radius of the center of the proposed drainfield.

A photogrammetric map of the site to be evaluated, approved or denied by the Health Department shall be provided by the applicant. This map must meet the criteria described in subsection (h8) hereof.

(e) (5.) Physical Features.

- (1) A. Subsurface-absorption ~~dispersal~~ systems shall not be placed on slopes greater than twenty-five percent.
- (2) B. Unfavorable microtopography may preclude the use of certain sites which have otherwise favorable soil characteristics.
- (3) C. Placement of ~~subsurface soil absorption~~ ~~dispersal~~ systems in fill material is prohibited.
- (4) D. No drainfields shall be placed closer than 100 feet from the low point of a sinkhole nor closer than fifty feet from the outer edge of a sinkhole. Sinkholes will be considered to exist with or without knowledge of the size, orientation or presence of subterranean voids, since the surface collapse evidences subsidence into such a void. Distances from rock outcrops may be increased and additional geologic information required in accordance with a geotechnical report, as described in Section 6.300.F150 of the Loudoun County Facilities Standards Manual, where limestone or other environmentally critical rock formations are encountered. ~~Site disturbance is to be minimized (seismic testing is preferable to borings or test pits).~~ E. Sewage disposal systems shall not be placed in swales or drainage ways.

(f) (6.) Soil Profiles and Patterns.

A backhoe is required for all soil evaluations and verifications with the exception of repairs (see repair definition criteria 1066.01) unless it is determined that unacceptable site damage would occur. The backhoe will be provided by the owner or agent at the time of evaluation or verification.

- (1) A. Depth of profile ~~hole~~ ~~pit~~. The minimum depth of the profile ~~hole~~ ~~pit~~ shall be six feet, unless prevented or made unnecessary by some physical feature of the soil, such as gray coloration, rock or when a potential horizon is found at a lesser depth. When a potential soil horizon is considered for use, the soil evaluation shall be extended below the soil horizon, with potential for use to insure that there is no interference with seasonal water tables, lithic rock, paralithic rock or other impervious strata.
- (2) B. Number, type and location of profile ~~holes~~ ~~pits~~. A minimum of five ~~holes~~ ~~pits~~ are necessary to determine the design requirements of an area for the placement of any absorption trenches. The size of the area investigated shall be based on the soil class encountered. Holes shall be evenly placed to bound the area under consideration with one hole installed in the center. If more than one area is required in which to install the absorption trenches, each area shall be evaluated with at least three soil ~~borings~~ ~~pits~~. The actual area and number of ~~borings~~ ~~pits~~ necessary shall be determined

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on a case-by-case basis.

(g) (7) Characteristics of Soils That Determines Suitability.

(1) A. Estimation of soil texture. The soil texture shall be estimated by field testing. The field test that shall be applied is contained in Appendix F of the Sewage /wastewater Handling and Disposal Regulations and is entitled "Field Guide to Soil Texture Classes." Laboratory estimation of texture by sieve and sedimentation and analysis may be substituted for the field test at the owner's request and expense. Samples shall be collected by the laboratory under supervision of the local Health Department or the Department of Environmental Resources.

(2) B. Cr horizons. See the definition in Section 1066.01 and the Sewage Disposal and Handling Regulations.

(3) Class IV soils. The use of soils exhibiting characteristics of Class IV soils, as described in the Interpretive Guide to the Use of Soils Maps, Loudoun County, Virginia, for OWTS, is prohibited.

(h) (8) Requirements for a Detailed Soil Site Investigation. Detailed soil-site investigation reports generated for any proposed on-site sewage /wastewater disposal treatment facility are required by and are to be submitted to the Loudoun County Health Department. A detailed soil-site investigation report is required for any land development sewage /wastewater effluent proposals and may be required by the Health Department for any other on-site sewage /wastewater disposal treatment and dispersal facility which is not exclusively regulated by the State. Technical standards for such investigations are contained in this chapter and current State regulations on this subject. This investigation shall be submitted to the Health Department for review and recommendation in accordance with Section 8.110.D.2 of Chapter 8 of the Loudoun County Facilities Standards Manual. A detailed investigation may also be required by the Director for specialized land use applications such as solid waste operations, composting facilities or other similar uses.

The detailed soil-site investigation report should include the following, where appropriate, unless determined by the Director, at the request of the developer, to be inapplicable based upon sound engineering principals:

(1) A. Results of field investigation.

A. (i) A map, drawn to 1:2,400 scale (1 inch = 200 feet) and larger, as requested on a sheet twenty-four inches by thirty-six inches. Where small tracts are involved, an eight by eleven-inch sheet may be acceptable, provided it complies with all other requirements set forth herein.

B. (ii) Existing water supplies and sewage /wastewater disposal treatment systems on or within 200' of the property. All existing and proposed sewage/wastewater systems and water supplies shall be labeled with their respective site or permit numbers and any other special label as specified by the Health Department.

C. (iii) The location of all borings and backhoe pits. Test holes/pits are to be numbered and located dimensionally, including surface elevations.

D. (iv) The location of all numbered proposed on-site sewage disposal treatment systems, if applicable. Each sewage/wastewater treatment system shall be described by metes and bounds. All sewage/wastewater treatment systems must be referred to property boundary by bearings and distances to at least one corner of the

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- system. All ~~subsurface soil absorption sewage/wastewater treatment~~ systems must be shown on contour and delineated by five borings or pits. In addition, for site locations ~~underlain~~ by limestone/limestone conglomerate, where the Health Department will require one geotechnical boring, the location of such boring shall be shown. One geotechnical boring shall be required by the Health Department site locations ~~underlain~~ by limestone/limestone conglomerate.
- E. ~~(v)~~ (v) The following items as they relate to the proposal, if required:
- 1 The landscape type and position, the slope and the surface drainage.
 - 2 The soil morphology, including the texture, color, structure, consistency, depth, lithologic discontinuities, boundaries, etc.
 - 3 The permeability, internal drainage and perched water tables.
 - 4 The parent material and associated problems.
 - 5 Restrictive layers.
- F. ~~(vi)~~ (vi) The soil evaluation form.
- (2) Recommendation and conclusions.
- A. The following items shall be included in the report when drainfields are proposed:
- ~~6~~ 1 Recommendations for use as on-site sewage/~~wastewater disposal~~ treatment dispersal sites, including depth of installation, type of system, relative suitability and modifications.
 - ~~6~~ 2 Recommendations and conclusions for repairing malfunctioning ~~OWTS on-site sewage disposal systems~~ or designing modified ~~OWTS on-site sewage disposal systems~~.
 - ~~7~~ 3 Where ~~OWTS on-site sewage disposal~~ is proposed, potential impacts on ground and surface water, loading rates and vegetative cover.
- B. The following shall be included in the report where applicable to other proposed uses:
- ~~8~~ 1 Recommendations for vegetative stabilization (lime, fertilization/seeding types and rates, stockpiling topsoil).
 - ~~9~~ 2 Conclusions on soil mineralogy.
 - ~~10~~ 3 Recommendations on the suitability of the site for land application of Class A sewage sludge. (See Article 7 of the Virginia Sewerage Regulations and Chapter 1090 of these Codified Ordinances.)
 - ~~11~~ 4 Conclusions on soil chemistry.
 - ~~12~~ 5 Recommendations regarding the suitability of the site for spray irrigation.
 - ~~13~~ 6 Recommendations for additional tests for geotechnical study.
- (3) Appendix A: field logs. Soil profile descriptions taken from soil boring/backhoe pits should include:
- A. The boring/pit number.
 - B. The depth, thickness and description of each horizon, including paralithic and lithic contacts encountered.
 - C. Locations of all samples taken and analyses to be conducted on each sample.
 - D. The depth to perched water and/or the ground water table if observed (or if indicated by soil color patterns).
 - E. The name of the person responsible for the description and

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sampling.

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- (4) Appendix B: field testing. If field tests, such as percolation test or permeability tests, have been conducted, the results should be included.
- A. Percolation tests.
- B. Permeability tests, including a description of the profile.
- C. Piezometer observations, including readings, depth, date of readings, rainfall data and soil profile (if available for the site).
- (5) Appendix C: laboratory data. Laboratory data produced to support the report shall be included.
(Ord. 94-05. Passed 2-16-94.)

1066.12 DESIGN AND LOCATION REQUIREMENTS FOR SUBSURFACE DISPOSAL FIELDS SEWAGE/WASTEWATER DISPOSAL TREATMENT SYSTEMS.

(a) Design Prescriptive.

- (1) Building sewers and conveyance lines shall be constructed of schedule 40 PVC or equivalent and have a minimum diameter of 4". A cleanout shall be provided just outside of the building and shall extend 1 foot above the finished grade.
- (2) Distance to rock. The minimum acceptable separation distance, both vertical and horizontal, from the absorption trench bottom and sidewalls to lithic rock, rock outcroppings, Cr horizons and pans, is ~~one foot~~ 18". However, in the LOC, horizontal and vertical separation between lithic rock and trench bottoms and sidewalls is ~~four feet~~ 48" (see Table 4.4 of the Virginia Sewage Handling and Disposal Regulations, "Minimum Separation Distances").
- (3) Depth to seasonal water table. The minimum separation distance from the absorption trench bottom to the seasonal water table is ~~two feet~~ 24". When a sewage treatment system that is designed to produce secondary effluent is proposed, the minimum offset to seasonal water table shall be 18" additional treatment and/or disinfection may reduce this distance further.
- (4) Blasting. The use of any explosive materials within 100 feet of the soil ~~disposal~~ dispersal system or within fifty feet of any remaining portion of the sewage conveyance, treatment or dosing system is specifically prohibited. Lithic rock encountered during installation will necessitate a redesign of the system permitted and will be handled on a case-by-case basis.
- (5) Size. The size of the absorption area of the sewage disposal system subsurface disposal field shall be based on the square footage of the trench bottoms and shall consist of a minimum of ~~600~~ 450 square feet (~~300 linear feet on a twenty-four inch trench~~) of subsurface ~~disposal~~ dispersal trench bottom. For systems designed for greater than 149 gallons per day the minimum size of the absorption area shall be 450 square feet plus one additional square foot for each gallon per day in the design flow.
- (6) Limestone Conglomerate Overlay District (LCOD) All sewage/wastewater treatment systems proposed in the LCOD shall be at least 90% effective in removing nitrogens.
- (7) Serial distribution of effluent is prohibited.

(b) Location. The location and installation of the sewage ~~disposal~~ treatment system and each part thereof shall be such that, with reasonable maintenance, the system will function in a sanitary manner and will not create a nuisance or endanger the safety of any domestic water supply. In determining a suitable location for the system, consideration shall be given to the size and shape of the lot, the slope of the natural and finished grade, the depth of the ground water table, the proximity to existing or future water supplies and the

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possible expansion of the system. Minimum location requirements, as set forth in Appendix II, following this chapter, shall be met.

Where a ~~OWTS sewage/wastewater disposal treatment system~~ is located by easement off the lot of the structure it serves, the Health Director or his or her designee shall establish special design and performance standards, procedures and forms necessary to ensure identification, protection and maintenance of the ~~OWTS sewage/wastewater disposal treatment system~~ to be located on that easement.

The subsurface ~~disposal~~ dispersal field shall be located on the lot, tract or parcel of land which it serves. However, subsurface ~~disposal~~ dispersal fields on off-site easements may be permitted in the following situations:

- (1) A permit was issued for the ~~sewage disposal system~~ OWTS prior to January 17, 1989.
- (2) The ~~sewage disposal system~~ OWTS is proposed to replace a failing ~~sewage disposal system~~ OWTS.
- (3) The lot was shown to be served by the off-site easement on a preliminary plan of subdivision approved prior to January 17, 1989.
- (4) The lot was shown on a preliminary plan of subdivision or plan of family subdivision accepted for review by the Department of Planning, Zoning and Community Development prior to January 17, 1989.
- (5) The ~~sewage disposal system~~ OWTS is proposed to serve an existing lot of record as of January 17, 1989, for which no approved on-site wastewater disposal treatment system can be found.
- (6) ~~Sewage disposal systems~~ OWTS shall be situated on permanent, dedicated open space, but only where specifically permitted by the Subdivision Regulations and the Zoning Code of the County.
- (7) Multiple existing structures on any parcel currently served by on-site ~~sewage disposal systems~~ OWTS may use easements for ~~sewage disposal systems~~ OWTS if a division of that parcel cannot be reasonably accomplished without the use of easements.
- (8) For lots in the A-2 or A-3 Zoning District on which an approved sewage/wastewater disposal treatment site exists, an off-site easement on an adjacent lot located along the common property boundary line may be approved if, in the determination of the Planning Commission, use of such easement will better meet the intent of the Subdivision Regulations through the creation of more orderly lot configurations, better dwelling locations, better buffering between lots or improved road configuration or access.

(c) Reserve Absorption Area Sites. Sufficient suitable soils shall be available on each lot, or available to each lot by easement or other device approved by the Director, to allow repair and/or extension of the ~~on-site sewage disposal system~~ OWTS for a period of time equal to:

- (1) The reasonably anticipated life expectancy of the structure (interpreted as 400 ~~120~~ percent repair area); or
- (2) In an area designated by an adopted area plan for future central sewer service by the Loudoun County Sanitation Authority or an incorporated town, the planned availability date of that sewer service or fifty percent of the originally required soil area, whichever is greater.

Conventional soil ~~disposal~~ treatment and dispersal systems are considered, for purposes of this section, to have both a design life and a minimum life expectancy of thirty years. Lots proposed for approval in these areas shall contain sewer utility easements designed to facilitate future sewer line construction and installation. Evidence of consultation regarding design with the Loudoun County Sanitation Authority or sewage

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treatment plant operator is required prior to Health Department approval. Non conventional Systems must address the design life and useful life expectancy of the entire system.

(d) Site Preparation and Alteration.

(1) Removal of vegetation. Vegetation, such as maples, willows and other plant species with extremely hydrophilic (water loving) root systems, shall be moved at least ten feet from the actual absorption areas. All trees should be removed from the absorption area. The local agent of the Virginia Department of Forestry will arbitrate any dispute as to the hydrophilic nature of any tree or shrub.

(2) Field marking of pretreatment and distribution systems. The preferred method of permanent marking of pretreatment and distribution components is with a ferrous metal pipe sleeve within a corrugated PVC drain pipe to permit electromagnetic location by metal detector.

(3) Drainage. No person shall divert water from his or her property onto that of another person, other than into natural drainageways, unless site grading plans, as described in Chapter 5.000 of the Loudoun County Facilities Standards Manual, are prepared and approved by the Directors of the Departments of Health and Building and Development.

(4) Grass swale. A shallow, man-made drainageway designed to divert and channel surface water run-off, especially sheet flow, covered with permanent vegetation, such as sod or grass, shall be prepared, where necessary. Cross-sectional dimensions are normally six feet wide by one foot deep.

(5) Placement of utilities.

A. Subsurface soil absorption systems shall not be placed in an underground utility easement. No buried utility services, water lines, electrical lines, gas lines, etc., shall traverse the subsurface soil absorption system area, nor shall the buried service be closer than ten feet to the system.

B. The placement of subsurface soil absorption systems under overhead utility lines is prohibited where heavy equipment must traverse the system in order to service and maintain the utility line. (Ord. 94-05. Passed 2-16-94.)

(e) Site protection after installation

Subsurface soil absorption systems shall be protected against surface damage, and freezing. Typically 12" of top soil are required in an open area.

1066.13 PERMIT REQUIRED FOR PIT PRIVIES.

No person shall erect, install or allow to be erected or installed a pit privy without first obtaining a permit therefor from the Health Department in accordance with the following provisions.

(a) Private Individual Residences; Business Establishments. Subsequent to the effective date of this chapter, no person shall construct pit privy facilities for sanitary waste ~~disposal~~ treatment in an individual residence or business establishment, inasmuch as a complete plumbing system with appropriate fixtures is necessary to good sanitation, and it shall not be satisfactory to the intent of this chapter to construct a dwelling or other structure which should have plumbing and household waste fixtures, in total or in part, present or future, which cannot and will not be able to provide for such wastes. This section shall not apply to the repair of or replacement of existing privies, nor shall it apply to the construction of new facilities where such construction is a temporary method of waste ~~disposal~~ treatment not to exceed six months, in conjunction with a construction site or like use. All privies shall be constructed or repaired in

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- accordance with plans and specifications as provided by the Health Department and are to be inspected and approved by the Health Department prior to use.
- (b) Temporary Pit Privy Use. In lieu of a permanent type of structure and for the purpose of ~~disposal~~ treatment of human excrement for temporary use, the following type of holding privy may be used for a specified period of time at a specific location as prescribed by the Health Officer.
- (1) Building; vents and door. A building may be used which may be on skids for movability, so constructed as to be flytight and rodentproof, with vents near the ceiling covered with sixteen mesh copper wire screen, or equivalent, and with a self-closing, flytight door.
 - (2) Seat box, hole and vent. The seat and seat box shall be so constructed as to be easily cleanable and to cover completely a corrosion-resistant, waterproof, metal or other approved material tank of sufficient capacity. The tank shall have all opening directly under the seat hole. Where necessary, an approved sleeve shall be provided between the seat and the tank. The tank shall be vented through or near the roof with a sixteen mesh screen covering.
 - (3) Maintenance. The tank shall be cleaned out at least once weekly or more often as necessary to prevent the contents from filling the tank above two-thirds of its capacity. Cleaning of the tank shall be done by a licensed contractor with approved equipment as required in Section 1066.04(b). Chemicals approved by the Health Department shall be added as often as necessary to liquefy wastes and prevent objectionable odors. Daily washing of the toilet seat and the inside of the building shall be required. Toilet tissue shall be provided at all times. The privy shall be maintained in such a way that it will not endanger the public health or create a nuisance. (Ord. 94-05. Passed 2-16-94.)

1066.14 CONSTRUCTION OF OTHER ~~INDIVIDUAL~~ SYSTEMS.

Plans for any ~~sewage disposal system~~ OWTS not specifically covered by this chapter shall be submitted in triplicate to the County Health Department for approval. Such systems shall be permitted only when the manner of wastewater disposal treatment is satisfactory to the Health Department and, in the case of discharges, is satisfactory to the Health Department and the State Water Control Board, and approved by the Board of Supervisors so as not to create a health hazard and/or undue stream quality degradation, provided that such systems can be demonstrated to provide adequate and safe sewage/wastewater disposal treatment and return of treated water to the environment. (Ord. 94-05. Passed 2-16-94.)

1066.15 WASTEWATER POLICY EVALUATION COMMITTEE

There shall be established, under the direction of the Health Director, the Environmental Health Wastewater Policy Evaluation Committee (WPEC). The WPEC shall be composed of a member, appointed by each organization's Director, from: Loudoun County Sanitation Authority, Department of Planning, Department of Building and Development, and the General Services Department. Up to four members shall be appointed to the WPEC from the Department of Environmental Health. The purpose of the WPEC shall be to consciously decide how State issued guidance, memoranda, and policies, related to onsite wastewater treatment and dispersal, shall or shall not be implemented within Loudoun County. The Health Director may delegate responsibility as "Chairperson."

1066.16 APPLICABILITY

STREETS, UTILITIES AND PUBLIC SERVICES CODE

- (a) Parts I through V inclusive, of the Commonwealth of Virginia State Board of Health Sewage Handling & Disposal Regulations, 12 VAC 5 - 610, are hereby adopted and incorporated in their entirety into this Chapter as if fully set forth herein. In the event of a conflict or inconsistency between this chapter and the Sewage Handling and Disposal regulations, the provisions of this Chapter shall control. When used in the Sewage Handling and Disposal Regulations, the term "Health Authority" shall mean the "Health Director" as defined in 1066.02.
- (b) In the case of alternative discharging systems, the Commonwealth of Virginia State Board of Health Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings 12 VAC 5-640-10 et.seq. are hereby adopted and incorporated in their entirety into this Chapter as if fully set forth herein. In the event of a conflict or inconsistency between this chapter and the Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings, the provisions of this Chapter shall control.
- (c) Commonwealth of Virginia regulations that may be adopted at a future time which govern Onsite Wastewater Treatment shall be considered incorporated in their entirety into this chapter as if fully set forth herein. In the event of any conflict or inconsistency between this chapter and future regulation, the most restrictive shall govern.
- (d) This chapter applies to new, modified, repaired, or replaced onsite wastewater treatment systems in its entirety effective upon enactment.
- (e) This chapter applies to existing permitted onsite systems upon enactment in its entirety with the exception of the requirement for a Loudoun County Operating Permit. However, an existing permitted OWTS will require an operation permit upon the existence or occurrence of any one of the following:
- (1) Upon replacement or modification of the OWTS;
 - (2) Within six (6) months for discharging systems or large capacity systems;
 - (3) Upon the sale of the property;
 - (4) Voluntarily by the property owner; or
 - (5) At the end of ten (10) years
- (f) This chapter applies to practitioner licensing one (1) year from enactment. The requirements that currently exist for licensing shall remain in effect until such time.
- 1066.99** COMPLIANCE, REMEDIES, ENFORCEMENT, PENALTIES AND APPEALS
- A) Damaging or Tampering with OWTS Prohibited.
No person shall maliciously, willfully or through gross neglect break, damage, destroy uncover, deface or tamper with any structure, appurtenance or equipment which is a part of an OWTS. Such acts shall be deemed to be a violation of this chapter.
- B) Failure to Submit Reports
Operation permits, notice of non-compliance, and servicing of systems.

~~Private Sewage Disposal Systems~~ Onsite Wastewater Treatment and Recycling Systems

- 1151 are examples where reports are required and shall be submitted to the
1152 County. Any person failing to submit the report on time shall be guilty of a
1153 Class 3 misdemeanor
- 1154 C) Emergency Compliance
1155 Compliance with an order or decision of the Health Director to correct a
1156 violation or correct a procedure shall be immediate and accomplished prior
1157 to taking any appeals when the Health Director advises in his order or
1158 decision, weather oral or written, that an emergency exists or that it is a
1159 matter of public or individual safety or may have significant environmental
1160 consequences. Upon non compliance of the owner, RME, or other
1161 responsible party, for a Type II failure, the Health Director may make the
1162 required correction or change at the cost and expense of the alleged
1163 violator, or the Health Director may avail himself of any or all of his other
1164 remedies.
- 1165 D) Voidance of Permits or Licenses
1166 Material changes in site conditions upon which a permit to operate a
1167 sewage/wastewater treatment system was based, or failure to maintain
1168 required maintenance agreements shall automatically void the operation
1169 permit. Notwithstanding any other provision of this chapter, operation permits
1170 shall be automatically void should the approving authority later determine that
1171 a potential health hazard has been created. Any practitioner may have his
1172 license suspended or revoked within the Loudoun County by the Health
1173 Director without notice:
1174 i. If he deems the surrounding facts and circumstances constitute an
1175 emergency such that damage or injury might occur to person,
1176 property, OWTS or the environment; or
1177 ii. After prior written notice of a violation of this chapter has been given
1178 and a failure thereafter, within a reasonable time, to correct or cease
1179 and desist from continuing the violation.
- 1180 E) Notice of Violation
1181 If the Health Director finds a failure or violation of any of the provisions of this
1182 chapter or a violation of any of the provisions of a permit and/or license as
1183 issued under this chapter, he shall direct the owner or person to whom the
1184 permit and/or license was issued, by written notice, to make the necessary
1185 corrections within such reasonable period as specified therein. No person
1186 shall fail to comply with such notice within such period.
- 1187 F) Corrective Action Report and Schedule
1188 When for any reason the correction cannot be accomplished within 1 week,
1189 the owner shall prepare and furnish to the Health Director a Corrective Action
1190 Report that identifies what actions will be taken to correct the problem and a
1191 schedule with dates to accomplish each action. Interim milestones shall be
1192 identified where the time between actions exceed two weeks.
- 1193 G) Administrative Compliance Hearing
1194 If a violation of this chapter is not corrected by timely compliance, the
1195 Health Director shall have the right to order the violator to show cause
1196 before the Health Director, or a hearing officer designated by him, why
1197 actions should not be taken by the Health Director to make the required
1198 correction or change at the cost and expense of the alleged violator and

STREETS, UTILITIES AND PUBLIC SERVICES CODE

1199 place a lien on the property.
1200 H) Adjudictory Hearing
1201 Except as otherwise set forth in 1066.99 C), of this chapter, an aggrieved
1202 person may appeal a decision or an order issued by the Health Director prior
1203 to compliance therewith. Such appeal shall be taken by the aggrieved person
1204 within thirty (30) days of the date of the decision or order. A petition for an
1205 appeal shall be filed, in writing , in the office of the Health Director within said
1206 time, specifying the matters appealed.
1207 I) Penalties for Offenses
1208 Any person who violates any requirement or provision of this chapter shall be
1209 deemed guilty of a misdemeanor and shall be punished as provided by law;
1210 each day's violation of any such chapter shall constitute a separate and
1211 distinct offense. The penalty in this section shall not be construed to be
1212 exclusive but is intended to be supplementary and in addition to any other
1213 remedy provided by law or equity. (See section 202.99 for general Code
1214 penalty.)
1215 J) Equitable Remedies
1216 In addition to the penalty provided in Section 1066.99, J), the Health Director
1217 may initiate injunction, mandamus, abatement or any other appropriate action
1218 to prevent, enjoin, abate or remove a violation of any of the provisions of this
1219 chapter.
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APPENDIX I
Bond Requirements

Installation license	
Bond requirement	\$10,000.00 <u>\$30,000.00</u>
Septic tank cleaner	
Bond requirement	3,000.00 <u>6,000.00</u>
Percolation test license	
Bond requirement	2,000.00 <u>8,000.00</u>
<u>Maintenance providers license</u>	
<u>Bond requirement</u>	<u>8,000.00</u>

Note:

1. Licenses are issued annually and are not proratable.
2. ~~Permit fees are not charged when existing, in-use sewage disposal facilities are being upgraded or replaced.~~
(~~Ord. 94-05. Passed 2-16-94.~~)

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